

**ABSTRACT**

An intelligent spectrum management (ISM) system and method are provided that includes sophisticated features to detect, classify, and locate sources of RF activity. The system comprises one or more sensors positioned at various locations in a region where activity in a shared radio frequency band is occurring and a server coupled to the sensors. Each sensor monitors communication traffic, such as IEEE WLAN traffic, as well as classifies non-WLAN signals occurring in the frequency band. The server receives data from each of the plurality of sensors and that executes functions to process the data supplied by the plurality of sensors. In particular, the server aggregates the data generated by the sensors and generates event reports and other configurable information derived from the sensors that is interfaced to a client application, e.g., a network management station.